



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/690,507

10/23/2003

Ji Yong Park

1514.1032

6043

49455 7590 03/19/2008

STEIN, MCEWEN & BUI, LLP
1400 EYE STREET, NW
SUITE 300
WASHINGTON, DC 20005

EXAMINER

SONG, MATTHEW J

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

03/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/690,507</p>	<p>Applicant(s) PARK ET AL.</p>	
	<p>Examiner MATTHEW J. SONG</p>	<p>Art Unit 1792</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 26 February 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Robert M Kunemund/
Primary Examiner, Art Unit 1792

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 2/26/2008 have been fully considered but they are not persuasive.

Applicant's argument that Jung does not suggest the average width of the polycrystalline grains is varied between 0.2-0.6 micrometer is noted but not found persuasive. First, Jung teaches in figure 3C silicon grains have a width approximately within the claimed range based on the 0.7 micrometer scale along the X direction where the width of the grains would along the Y direction. Second, Jung et al teaches a grain region is 2 micrometer and the width of the slit defines the grain size (col 1, ln 55-67 and col3, ln 45-65); therefore the slit is approximately 2 micrometer. Jung also teaches a translation distance of 0.7 micrometer; thus the amount of overlap is also within the range of 0.5-2 micrometer taught by applicant. Jung et al teaches a similar method of overlapping grains, as taught by applicant; therefore the grain size is inherently within the claimed range.

Applicant's argument that Jung does not teach increasing the width of the grains such that the when the width of the overlapping region is varied from no less than 0.5-2 micrometer, an average width of the grain is varied between 0.2-0.6 micrometer, and is decreased when the width of the overlapping region on which the laser beam is overlappingly irradiated is decreased is noted but not persuasive. Jung does teach a width of an overlapping region without the range of 0.5-2 micrometer, (See col 3, ln 45-65 which teaches a 2 micrometer region and a translation distance of only 0.7 micrometer; and See cols 8-10 which teaches a 2 micrometer slit and moving 0.7 micrometer or 1.7 micrometer). Therefore, the claimed effects of the overlap would be inherent or a person of ordinary skill in the art would reasonably expect the features.

Applicant's argument that Figure 3C of Jung does not teach the claimed feature of 0.2-6 micrometer is noted but not found persuasive. Figure 3C has a scale of 0.7 micrometer along the X axis; therefore an extrapolation of the scale along the Y axis to determine the width shows a width within the claimed range. The fact that there is no written description is not persuasive because the feature is clearly disclosed in the figure. Also, as discussed previously, the feature is inherent because Jung teaches a similar degree of overlap which inherently produces grain widths within the claimed range. In the alternative, the feature would have been obvious to one of ordinary skill in the art.

Applicant's argument that Yang discloses a completely different mask is noted but not found persuasive. Both Jung and Yang teach a method of sequential laser solidification (See both abstracts). The use of different patterned masks are within the skill in the art. Yang teaches an improved mask having mask properties claimed by applicant. The use of Yang's improved mask in the process taught by Jung would have been obvious to one of ordinary skill in the art.

Applicant's argument regarding the 35 U.S.C. 103 rejection in view of Jung are not persuasive. Jung teaches grains less than 1 μ m are useful in TFT devices (col 4, ln 30-50), smaller slit spacing produces smaller grains (col 5, ln 1-15); the grain size affect field effect mobility (col 1, ln 15-45) and slit sizes of 2 micrometer with a translation distance of 0.7 micrometer are conventional (col 4, ln 4 to col 5, ln 10).

Jung teaches smaller grains are useful as TFT, slit size affects grain size and slit size with a translation distance within the range taught by applicant. Therefore, the claimed invention would have been obvious to one of ordinary skill in the art.